

## CLAIMS:

1. Transceiver for transmitting signals in a transmitting mode and for receiving signals in a receiving mode and comprising a digital synthesizer (24) driven phase locked loop (10-15), characterized in that said digital synthesizer driven phase locked loop (24,10-15), in said transmitting mode, is in a modulating state, with said digital synthesizer driven phase locked loop (24,10-15), in said receiving mode, being in an oscillating state.  
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2. Transceiver according to claim 1, characterized in that said digital synthesizer driven phase locked loop (24,10-15) receives, in said modulating state, a modulation signal, with said digital synthesizer driven phase locked loop (24,10-15), in said oscillating state, receiving a non-modulation signal.  
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3. Transceiver according to claim 2, characterized in that said transceiver comprises a controller (40) for generating said modulation signal and for generating control signals, with a switch (32) being coupled to said controller (40) and said digital synthesizer driven phase locked loop (24,10-15) for in response to a first control signal supplying said modulation signal from said controller (40) to said digital synthesizer driven phase locked loop (24,10-15) and in response to a second control signal supplying said non-modulation signal to said digital synthesizer driven phase locked loop (24,10-15).  
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- 20 4. Transceiver according to claim 1 or 2, characterized in that said digital synthesizer driven phase locked loop (24,10-15) comprises, in said modulating state, a first filtering performance, with said digital synthesizer driven phase locked loop (24,10-15) comprising, in said oscillating state, a second filtering performance different from said first filtering performance.  
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5. Transceiver according to claim 4, characterized in that said digital synthesizer driven phase locked loop (24,10-15) comprises a first filter (12) for said first filtering performance and a second filter (13) for said second filtering performance, with a switch (11)

being coupled to said filters (12,13) for in response to a first control signal selecting said first filter (12) and in response to a second control signal selecting said second filter (13).

6. Transceiver according to claim 1 or 2, characterized in that said digital  
5 synthesizer driven phase locked loop (24,10-15), in said modulating state, generates a modulated signal, with said digital synthesizer driven phase locked loop (24,10-15), in said oscillating state, generating a non-modulated signal.

7. Transceiver according to claim 6, characterized in that an output of said digital  
10 synthesizer driven phase locked loop (24,10-15) is coupled via a first switch (5) and a transmitter part (2) and a second switch (3) to an antenna (1) for in response to a first control signal supplying said modulated signal to said antenna (1) for transmitting said modulated signal, with said first switch (5) further being coupled to a first input of a demodulator (6) and with said second switch (3) further being coupled via a receiver part (4) to a second input  
15 of said demodulator (6) for in response to a second control signal supplying said non-modulated signal to said demodulator (6) for demodulating a radio signal received via said antenna (1).

8. Digital synthesizer driven phase locked loop (24,10-15) for use in a  
20 transceiver for transmitting signals in a transmitting mode and for receiving signals in a receiving mode and comprising said digital synthesizer driven phase locked loop (24,10-15), characterized in that said digital synthesizer driven phase locked loop (24,10-15), in said transmitting mode, is in a modulating state, with said digital synthesizer driven phase locked loop (24,10-15), in said receiving mode, being in an oscillating state.

25 9. Phase locked loop (10-15) for use in a digital synthesizer driven phase locked loop (24,10-15) for use in a transceiver for transmitting signals in a transmitting mode and for receiving signals in a receiving mode and comprising said digital synthesizer driven phase locked loop (24,10-15), characterized in that said phase locked loop (10-15), in said  
30 transmitting mode, is in a modulating state, with said phase locked loop (10-15), in said receiving mode, being in an oscillating state.

10. Digital synthesizer (24) for use in a digital synthesizer driven phase locked loop (24,10-15) for use in a transceiver for transmitting signals in a transmitting mode and for

receiving signals in a receiving mode and comprising said digital synthesizer driven phase locked loop (24,10-15), characterized in that said digital synthesizer (24), in said transmitting mode, is in a modulating state, with said digital synthesizer (24), in said receiving mode, being in an oscillating state.

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11. System comprising at least one portable unit and at least one network unit for radio communication, with at least one unit comprising at least one transceiver for transmitting signals in a transmitting mode and for receiving signals in a receiving mode and comprising a digital synthesizer driven phase locked loop (24,10-15), characterized in that  
10 said digital synthesizer driven phase locked loop (24,10-15), in said transmitting mode, is in a modulating state, with said digital synthesizer driven phase locked loop (24,10-15), in said receiving mode, being in an oscillating state.

12. Portable unit comprising a transceiver for transmitting signals in a transmitting  
15 mode and for receiving signals in a receiving mode and comprising a digital synthesizer driven phase locked loop (24,10-15), characterized in that said digital synthesizer driven phase locked loop (24,10-15), in said transmitting mode, is in a modulating state, with said digital synthesizer driven phase locked loop (24,10-15), in said receiving mode, being in an oscillating state.

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13. Network unit comprising at least one transceiver for transmitting signals in a transmitting mode and for receiving signals in a receiving mode and comprising a digital synthesizer driven phase locked loop (24,10-15), characterized in that said digital synthesizer driven phase locked loop (24,10-15), in said transmitting mode, is in a modulating state, with  
25 said digital synthesizer driven phase locked loop (24,10-15), in said receiving mode, being in an oscillating state.

14. Method for transmitting signals in a transmitting mode and for receiving signals in a receiving mode via a digital synthesizer driven phase locked loop (24,10-15),  
30 characterized in that said method comprises a first step of bringing said digital synthesizer driven phase locked loop (24,10-15), in said transmitting mode, in a modulating state, and a second step of bringing said digital synthesizer driven phase locked loop (24,10-15), in said receiving mode, in an oscillating state.